

Patent Claims:

1. Method for detecting and evaluating the conditions of vehicle movement dynamics for a motor vehicle by means of wheel force sensors, preferably tire sensors, which take the preadjusted air slot between at least one rotating encoder and at least one pick-up for measuring data into account as a standard for the transverse forces that act on the wheel or on the tire,
c h a r a c t e r i z e d in that the air-slot-dependent operating point of the output signal of the pick-up for measuring data or a signal-conditioning device is set irrespective of the preadjustment of the said point which was made during predetermined driving behavior.
2. Method as claimed in claim 1,
c h a r a c t e r i z e d in that the output signal is standardized to at least one nominal value when the driving behavior is stationary.
3. Method as claimed in claim 1 or 2,
c h a r a c t e r i z e d in that the output signal is a sinusoidal alternating voltage or alternating current signal, and the nominal value is determined with each peak value of the half wave (amplitude) or with each alternation of the poles or markings of the encoder.
4. Method as claimed in any one of claims 1 to 3,
c h a r a c t e r i z e d in that associated with the nominal value is a value which reproduces the zero point (offset) of the transverse force acting on the wheel and/or the tire.

5. Method as claimed in any one of claims 1 to 4, characterized in that the transverse forces are determined in dependence on the amplitude variations according to the relation

$$Amp_{usefuleffect} = \frac{Amp}{Amp_{no\ min\ alvalue}}$$

wherein Amp = output signal (amplitude), Amp_{nominal value} = standardized output signal (nominal value), Amp_{usefuleffect} = ratio between the amplitude and the standardized nominal amplitude.

6. Method as claimed in claim 5, characterized in that the amplitude variations are attributed by means of the inverse function to changes in distance according to the relation

$$Dis_{usefuleffect} = k * \ln \left(\frac{Amp}{Amp_{no\ min\ alvalue}} \right)$$

wherein Dis_{useful effect} = changes in distance and k = negative constant.

7. Method as claimed in claim 6, characterized in that the transverse forces are basically determined as a function of the changes in distance.
8. Method as claimed in any one of claims 1 to 7, characterized in that the nominal value is maintained until the predetermined driving behavior is detected.

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9. Control circuit for detecting and evaluating the conditions of vehicle movement dynamics for a motor vehicle by means of wheel force sensors, preferably tire sensors, which take the preadjusted air slot between at least one rotating encoder and at least one pick-up for measuring data into account as a standard for the transverse forces that act on the wheel or on the tire, characterized by a determination unit which sets the air-slot-dependent operating point of the output signal of the pick-up for measuring data or a signal-conditioning device irrespective of the said point's preadjustment which was made during predetermined driving behavior.
10. Control circuit as claimed in claim 9, characterized by a standardization of the output signal to at least one nominal value when the vehicle movement behavior is stationary.
11. Control circuit as claimed in claim 9 or 10, characterized in that the output signal of the pick-up for measuring data or the signal-evaluating device is a sinusoidal alternating voltage or alternating current signal, and the determination unit determines the nominal value with each peak value of the half wave (amplitude) or with each alternation of the poles or markings of the encoder.
12. Control circuit as claimed in any one of claims 9 to 11, characterized in that there is provision of means attributing a value to the nominal value which represents the zero point (offset) of the transverse force, and in that the determination unit determines

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transverse forces in dependence on the amplitude variations according to the relation

$$Amp_{usefuleffect} = \frac{Amp}{Amp_{no\ min\ alvalue}}$$

wherein Amp = output signal (amplitude), Amp_{nominal value} = standardized output signal (nominal value), Amp_{usefuleffect} = ratio between the amplitude and the standardized nominal amplitude.

13. Control circuit as claimed in claim 12, characterized in that the determination unit attributes the amplitude variations by means of an inverse function to changes in distance according to the relation

$$Dis_{usefuleffect} = k * \ln \left(\frac{Amp}{Amp_{no\ min\ alvalue}} \right)$$

wherein Dis_{useful effect} = changes in distance and k = negative constant.

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